October 5, 1990
NARRATIVE FOR BORAH PEAK QUADRANGLE
DILLON RESOURCE AREA MANAGEMENT PLAN/EIS

INTRODUCTION

Only about three sections in Ts. 15 and 16 S., R. 12 W., MPM, of the Dillon Resource Area (DRA) are on the Borah Peak Quadrangle. This small area is in the Beaverhead Mountains and east of the Continental Divide, which is the boundary between Montana and Idaho, as well as between the DRA and Lemhi County, Idaho.

No towns or roads are present. A trail on Meadow Creek is about three-fourths of a mile to the northeast. It joins Sheep Creek, which flows into the Red Rock River near Lima on I-15 about 20 miles to the northeast. It is entirely within the Cordilleran thrust belt (Skipp, 1988).

About one-half of these three sections is covered by Tertiary Eocene Challis volcanics. Mississippian rocks are found at the north edge and the Ordovician age Beaverhead Mountains pluton outcrops along the southwest side.

The Hawley Creek thrust trace crosses the area. A well in front (north) of this trace should encounter about 2,330 feet of the Fritz thrust plate including Mississippian, Devonian, Ordovician, and Proterozoic rocks. After crossing the Fritz thrust plane, it would find about 12,415 feet of rocks in the Cabin thrust plate with rocks from Pennsylvanian into Archean age, with the greatest thickness in the Proterozoic (7,380 feet). Below the Cabin thrust plane should be a section of Mississippian and Devonian rocks about 2,655 feet thick which comprises the Medicine Lodge thrust plate. This adds up to 17,400 feet. If the Four Eyes Canyon thrust plate and the Tendoy thrust plate are present this far southwest of their surface traces, then 10,000 feet, or more, of additional sediments could be present before reaching Archean basement.

The nearest well is the Amoco 1 State about 10 miles southwest. It is in the Birch Creek Valley, Lemhi County, Idaho. It spudded in Pliocene sediments and encountered Mississippian Madison (probably Scott Peak) at 3,500 feet. Rocks at total depth are unidentified but should have been Ordovician Beaverhead Mountains pluton.

OCCURRENCE POTENTIAL

There is no oil or gas production in this area; therefore, no "HIGH" occurrence potential is recognized. Also, no "MODERATE" potential is indicated because the large thicknesses of sediments are probably over-mature for hydrocarbon generation and entrapment. Proximity to the Beaverhead Mountains pluton has probably caused some metamorphism.

Secs. 25, 26, 35, and 36 of T. 15 S., R. 12 W., are rated as "LOW" potential as they are more removed from the pluton and are mostly in front of the Hawley Creek thrust trace.

Secs. 1, 12, and 13, T. 16 S., R. 12 W., are classified as "VERY LOW" in occurrence potential. They are on the Hawley Creek thrust plate, and outcrops of the Beaverhead Mountains pluton occur there.

DEVELOPMENT POTENTIAL All of this area is rated "VERY LOW" for development potential except for sec. 25, T. 15 S., R. 12 W., which is rated "LOW."

There are no "HIGH" or "MODERATE" development potential lands in this area. No wells are anticipated in the next 15 years.

REFERENCES CITED

Skipp, Betty, 1988, Cordilleran Thrust Belt and Faulted Foreland in the Beaverhead Mountains, Idaho and Montana, in Geological Society of America, Memoir 171, pp. 237-266, Schmidt, Christopher J., and Perry, William J., Jr. (eds.).